

## CLAIMS

1. A composition comprising formononetin and one or more isoflavones selected from biochanin, genistein and daidzein, in a therapeutically effective ratio of formononetin to said isoflavones of 15:1 to 2:1, optionally in association with one or more carriers, excipients, auxiliaries and/or diluents.
2. A composition according to claim 1 wherein the ratio of formononetin to said isoflavones is from 10:1 to 2:1.
3. A composition according to claim 1 comprising formononetin and biochanin.
4. A composition according to claim 1 in the form of a solid dosage unit.
5. A composition according to claim 4 in the form of a tablet, capsule, granular preparation, buccal delivery vehicle or suppository.
6. A composition according to claim 1 wherein said formononetin and biochanin comprise an extract of chickpea or clover.
7. A composition according to claim 6 wherein said clover is selected from red clover (*T. pratense*), subterranean clover (*T. subterranean*) or white clover (*T. repens*).
8. A composition according to claim 7 wherein said clover is red clover.
9. A composition according to claim 1 for the prevention and/or treatment of cardiovascular disease, or the beneficial alteration of blood lipoprotein levels, or to reduce the risk of coronary heart disease, or to reduce the risk of arteriosclerosis, or in the beneficial alteration or maintenance of bone density

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such as in the prevention or treatment of osteoporosis, and/or in the prevention and/or treatment of bone fracture.

10. A composition according to claim 1 which additionally includes one or more 5 vitamins.

11. A composition according to claim 10 wherein said vitamins are selected from one or more of vitamin C, vitamin D, vitamin E, vitamin K, vitamin A, and vitamin B.

10 12. A composition according to claim 1 which additionally includes a calcium containing compound (0.5 g to 2 g).

13. A composition according to claim 1 which is incorporate into a beverage.

15 14. A composition according to claim 13 wherein the beverage is selected from a nutritional beverage, sports beverage, juice, milk or milk alternative.

15 15. A composition according to claim 1 which is incorporated into a food.

20 16. A composition according to claim 15 where the food is yogurt, a food bar, a spread, hard cheese, soft cheese, cream cheese or cottage cheese.

17. A composition according to claim 1 in the form of a pharmaceutical composition.

25 18. A composition according to claim 17 which is in the form of a pill, tablet, capsule, suppository, dragee or sublingual dosage form.

19. Use of formononetin and one or more isoflavones selected from biochanin, 30 genistein and daidzein in the ratio of 15:1 to 2:1 for the manufacture of a

medicament for the treatment and/or prevention of cardiovascular disease, or the beneficial alteration of blood lipoprotein levels, or to decrease the propensity of thrombogenic events in humans, or to reduce the risk of coronary heart disease, or to reduce the risk of arteriosclerosis, or in the beneficial alteration or maintenance of bone density such as in the prevention and/or treatment of osteoporosis, and/or in the prevention and/or treatment of fracture.

- 5 20. Use according to claim 13, which includes providing formononetin and biochanin in a ratio of 15:1 to 2:1, and forming a composition for administration to humans in admixture with one or more carriers, excipients, auxiliaries or diluents.
- 10 21. A method for the treatment and/or prevention of cardiovascular disease, or the beneficial alteration of blood lipoprotein levels, or to reduce the risk of coronary heart disease, or to reduce the risk of arteriosclerosis, or in the beneficial alteration or maintenance of bone density such as in the treatment or prevention of osteoporosis, or in the prevention and/or treatment of bone fracture, which comprises administering to a human subject a composition comprising formononetin and one or more of biochanin, genistein and daidzein in a therapeutically effective ratio of formononetin to said isoflavones of 15:1 to 2:1, optionally in association with one or more carriers, excipients, auxiliaries, and/or diluents.
- 15 20 25 22. A method according to claim 21 which is a method for the beneficial alteration of blood lipid protein levels.
23. A method according to claim 22 which increases the concentration of high density lipoprotein in the blood of said human.
24. A method according to claim 23 which decreases the concentration of low density lipoprotein in the blood of said human.

25. A method according to claim 21 to reduce the risk of vascular disease.
26. A method according to claim 21 to reduce the risk of coronary heart disease.
- 5 27. A method according to claim 21 to reduce the risk of arteriosclerosis.
28. A method according to claim 21 for the treatment or prevention of osteoporosis.
- 10 29. A method according to claim 21 wherein the ratio of formononetin to said isoflavones is from 10:1 to 2:1.
30. A method according to claim 21 wherein said composition is in the form of a solid dosage form.
- 15 31. A method according to claim 21 wherein said dosage form comprises a tablet, capsule, granular preparation, buccal delivery vehicle or suppository.
32. A method according to claim 21 wherein said formononetin and biochanin comprise an extract of chickpea or clover.
- 20 33. A method according to claim 32 wherein said clover is selected from red clover (*T. pratense*), subterranean clover (*T. subterranean*) or white clover (*T. repens*).
- 25 34. A method according to claim 33 wherein said clover is red clover.
35. A method according to claim 21 wherein the human subject is a pre-menopausal, menopausal or post-menopausal woman.

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36. A method according to claim 35 wherein said woman is normocholesterolemic or hypercholesterolemic.

37. A method according to claim 36 wherein said woman is artherosclerotic.

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38. A method according to claim 21 wherein said human subject is a normocholesterolemic or hypercholesterolemic male.

39. A method according to claim 38 wherein said male is hypercholesterolemic.

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40. A method according to claim 39 wherein said male is normocholesterolemic.

41. A method according to claim 21 which is a method for the prevention or treatment of bone fracture.

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42. A method according to claim 41 wherein said method is a method of preventing or treatment fractures involving bone with predominant cortical bone tissue.

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43. A method according to claim 42 wherein said bone is selected from the femoral neck, femur, humerus, radius, ulna or tibia bone.